

Notice of Allowability

Application No.

10/657,773

Examiner

Ajay Vasudeva

Applicant(s)

BARKER, WILLIAM P.

Art Unit

3617

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application filed 9/08/2003.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☒ The drawings filed on 08 September 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date filed 9/08/2003
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-19 are allowed.
2. The following is an examiner's statement of reasons for allowance:

The prior art does not show or teach:

(A) an ejection system for launching bodies from a submarine, having (i) a charging pump for transferring seawater from outside a pressure hull of the submarine to an ejection tank having an elastomeric wall; and (ii) a check valve for a dampened closure upon filling of the ejection tank, the valve having a stem with a head, and a disk with a circular protrusion extending toward a valve seat; an annular cup mounted around the stem and having a circular depression configured complementarily to the disk protrusion, with radial flow restrictive holes disposed in the cup to extend from the depression to an outer wall of the cup; whereby in closure of the check valve, the disk circular protrusion enters the cup depression, forcing seawater in the depression to exit the cup through a primary flow restriction of the annular path between the disk circular protrusion and the cup depression and a secondary flow restriction of the radially extending holes, thereby slowing the valve closure, as claimed by the independent claims 1 and 8, OR

(B) a spring-activated check valve having a stem with a head, and a disk with a circular protrusion extending toward a valve seat; an annular cup mounted around the stem and having a circular depression in a surface, the depression configured complementarily to the disk protrusion, and radial flow restrictive holes disposed in the cup to extend from the depression to an outer wall of the cup; whereby in closure of the check valve by spring action, the disk circular protrusion mates to the cup depression, forcing any fluid in the depression through a primary

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restrictive area of an annular gap between the disk protrusion and the depression and a secondary restrictive area of the radially extending holes, thereby dampening the engagement of the head with the valve seat during the closure, as claimed in the independent claim 15.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ajay Vasudeva whose telephone number is (703) 306-5992. The examiner can normally be reached on Monday-Friday 1:00 pm--5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano can be reached on (703) 308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ajay Vasudeva
Examiner
Art Unit 3617

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S. JOSEPH MORANO
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